



(22) Date de dépôt/Filing Date: 2003/10/15

(41) Mise à la disp. pub./Open to Public Insp.: 2005/04/15

(45) Date de délivrance/Issue Date: 2011/01/04

(51) Cl.Int./Int.Cl. *A61F 11/14* (2006.01),
A41D 20/00 (2006.01), *A42B 1/06* (2006.01),
H04R 1/10 (2006.01), *H04R 5/033* (2006.01)

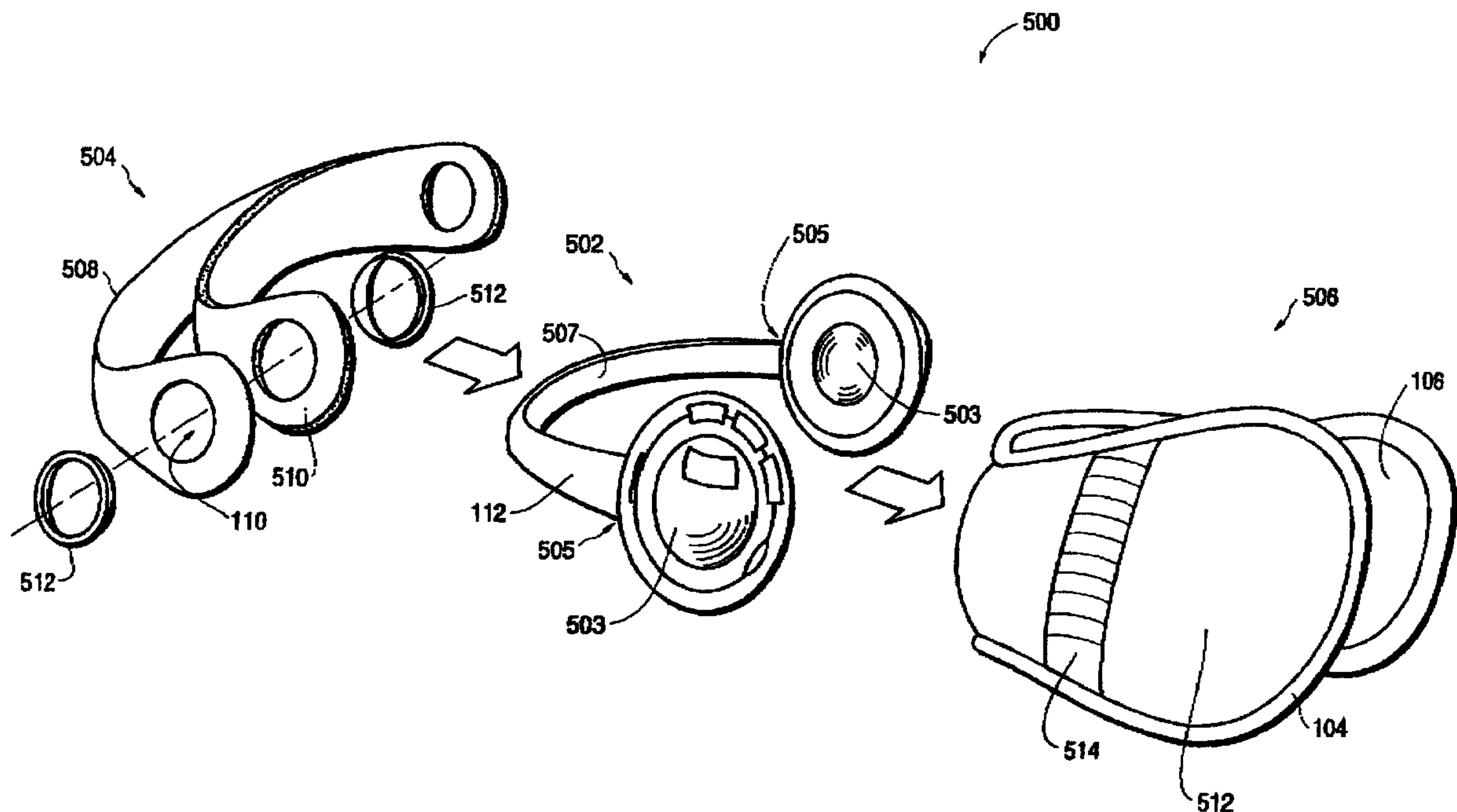
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(54) Titre : ARTICLE POUR TENIR LES OREILLES AU CHAUD COMPRENANT UN DISPOSITIF ELECTRONIQUE

(54) Title: EAR WARMING ARTICLE INCLUDING ELECTRONIC DEVICE



(57) Abrégé/Abstract:

An ear warming article that can be comprised of a C-shaped resilient band, an outer sleeve and a speaker or other electronic device is described. The outer sleeve is dimensioned to contain the resilient band, and includes two insulating, ear-receiving portions as well as a first opening through which the resilient band can be inserted or removed to yield an assembled or disassembled article, respectively. In a preferred embodiment, the article includes an electronic device having one or more speakers located at the ends of the resilient band; additional openings in the outer sleeve may exist for any control functionality associated with the electronic device(s). The outer sleeve can be comprised of a washable fabric material, particularly suitable as a means for interchangeable advertising (team logo, branding, etc.). In other embodiments, the ear warming article includes additional advertising and/or securing features.

ABSTRACT

An ear warming article that can be comprised of a C-shaped resilient band, an outer sleeve and a speaker or other electronic device is described. The outer sleeve is dimensioned to contain the resilient band, and includes two insulating, ear-receiving portions as well as a first opening through which the resilient band can be inserted or removed to yield an assembled or disassembled article, respectively. In a preferred embodiment, the article includes an electronic device having one or more speakers located at the ends of the resilient band; additional openings in the outer sleeve may exist for any control functionality associated with the electronic device(s). The outer sleeve can be comprised of a washable fabric material, particularly suitable as a means for interchangeable advertising (team logo, branding, etc.). In other embodiments, the ear warming article includes additional advertising and/or securing features.

EAR WARMING ARTICLE INCLUDING ELECTRONIC DEVICE

5 FIELD OF THE INVENTION

The present invention relates generally to a warming article for a wearer's head that can include electronic equipment (e.g., earphones, headset, audio- or other data-receiving equipment, etc.), and more specifically to an ear warming article including an audio device that has a novel two-piece construction including easily interchangeable
10 advertising means.

BACKGROUND OF THE INVENTION

There are many prior articles designed to cover portions of an individual's head for warmth and/or protection from the elements, such as hats, headbands, and articles that
15 cover primarily the ears alone. A most common variety of this last type of ear warming, frequently referred to as an "earmuff," is comprised of a resilient, C-shaped band that is worn around the top of an individual's head and ear-receiving portions or pockets located at the ends of the C-shaped band. This arrangement is particularly useful in situations where an individual does not wish to constrain their hair as well as in other situations
20 where additional material might be too bulky or interfere with the user. Furthermore, in many situations where an individual would desire to wear such ear protection and display additional insignia/advertising, a variety of additional functionality can be particularly advantageous.

First, it may be desired to design the earmuff so that it may be positioned or worn
25 around the back of an individual's head. A neck-engaging variety of this design can

possess the additional advantage of providing protection and added warmth to a wearer's neck as well. In any arrangement where the C-shaped band traverses the backside of the wearer's head, however, the features and functionality of the remainder of the ear warming article need to accommodate this unconventional positioning. For example, the shape of the ear-engaging portions need to take into account the way the ear warming article is worn.

Second, present ear warming articles do not allow the wearer to listen to music or other audio input by means of an integrated electronic device. At football games and other outdoor events, it is often desirable to have warm ears and listen to the radio or music at the same time. It is a significant drawback of current ear warming articles that they possess little or no ability to work with audio-related devices such as earphones, stereo/radio headphones, receivers (radio, XFM, etc.), audio output devices (CD players, MP3 players, etc.), and other audio or audiovisual electronic devices. Consumers are generally forced to pick between wearing either an ear warming article or radio headphones, or to switch between the two as needed, which is particularly undesirable in poor weather. At best, some products offer earphones as an add-on or accessory to a conventional ear-muff. For individuals who desire to receive the benefit of both ear warming articles and audio-related devices in an integrated device, there is a lack of acceptable articles that satisfy both functions at the same time.

Further, many current ear warming articles are unsatisfactory due to a number of shortcomings related to either their appearance or their capabilities. For example, it is often desirable for such headgear to provide advertising or branding opportunities that are attractive to the wearer and are also economical to produce. Articles of this type are frequently purchased based upon the article's possession of a logo or other insignia that

indicates association with an interest (favorite sporting team, company, etc.) of the wearer. The specific detail (size, shape, functionality, attractiveness, etc.) of this insignia can be of utmost importance and can easily form the basis for purchase of the article, particularly when a premium article is desired. Current articles sometimes attempt to
5 provide insignia, however such insignia is frequently unacceptable to the wearer because of the logo's size or location, or even because the logo itself cannot be removed, changed or washed.

Another drawback is that current ear warming articles are typically have a complicated, many-piece construction, frequently making the article difficult to
10 manufacture. Such an approach also often leads to an unwanted appearance and can miss a main objective, such as making a reasonably-priced article that is both comfortable and good-looking while providing protection from inclement weather conditions.

Therefore, current ear-warming articles are generally unable to offer the construction, usefulness, appearance and flexibility required to adequately and cost-
15 effectively provide the functionality desired by today's sophisticated, demanding customers.

SUMMARY OF THE INVENTION

An ear warming article comprising a C-shaped resilient band, an outer sleeve and
20 (in some embodiments) a speaker or other electronic device is described. The outer sleeve is dimensioned to contain the resilient band, and includes two insulating, ear-receiving portions as well as a first opening through which the resilient band can be inserted and removed to yield an assembled or disassembled article, respectively. In a preferred embodiment, the article includes an electronic device having one or more

52827-1

speakers located at the ends of the resilient band;
additional openings in the outer sleeve may exist for any
control functionality associated with the electronic
device(s). The outer sleeve can be comprised of a washable
5 fabric material, particularly suitable as a means for
interchangeable advertising (team logo, branding, etc.). In
some embodiments, the ear warming article provides coverage
and warming benefit to the wearer's neck as well. In
additional embodiments, the ear warming article includes
10 additional advertising and/or securing features.

According to one aspect of the present invention,
there is provided a warming device for the ears of an
individual comprising: a resilient band, the band having two
distal portions placed over the individual's ears and
15 connected together by a central curved portion extending
around the back of the individual's head; an electronic
headset, the electronic headset comprising a speaker mounted
on one of the distal portions and facing the individual's
head for reproducing an audio output from an audio signal,
20 and a control portion including one or more control
mechanisms related to the audio output; wherein the control
portion is positioned on the at least one distal portion of
the resilient band or the other distal portion of the
resilient band so as to face away from the individual; an
25 outer sleeve dimensioned to contain the resilient band, the
outer sleeve comprising two end portions corresponding to
the distal portions of the resilient band and a connecting
portion coupling together the two end portions of the outer
sleeve, a first opening in the outer sleeve through which
30 the resilient band can be inserted and removed, a second
opening in the outer sleeve in the end portion to expose the
control portion, the outer sleeve having a soft surface
facing the individual's head for contact with the

52827-1

individual's skin; and wherein when the resilient band is inserted within the outer sleeve, the control portion extends through the second opening to provide the individual with access to the one or more control mechanisms.

5 According to another aspect of the present invention, there is provided a cover for a headphone of the type having a resilient band having a central curved portion extending around the back of an individual's head and two distal portions placed over the individual's ears, at least
10 one of the distal portions carrying a speaker for reproducing an audio signal and the other distal portion carrying a control portion including one or more outwardly facing control mechanisms related to the audio signal; wherein the cover comprises: an outer sleeve dimensioned to
15 contain the resilient band, the outer sleeve comprising two end portions corresponding to the distal portions of the resilient band for covering the individual's ears and a connecting portion coupling together the two end portions of the outer sleeve, a first opening in the outer sleeve
20 through which the resilient band can be inserted and removed and a second opening in the end portion of the outer sleeve to expose the control portion; wherein the outer sleeve has a soft surface facing the individual's head for contact with the individual's skin; and wherein when the resilient band
25 is inserted within the outer sleeve, the control portion extends through the second opening to provide the individual with access to the one or more control mechanisms.

 According to still another aspect of the present invention, there is provided a warming article to be worn
30 over the ears of an individual and extend around the back of the individual's head, comprising: a resilient band, the band having a central curved portion and two distal portions; an electronic headset device associated with at

52827-1

least one of the two distal portions, the electronic headset device comprising a speaker for playing an audio output from an audio signal, a receiver, and a control portion including one or more control mechanisms related to the audio output or audio signal; wherein the control portion is positioned on the distal portion so as to face away from the individual; an outer sleeve designed to contain the resilient band, the fabric outer sleeve comprising two end portions corresponding to the distal portions of the resilient band, a first opening used to insert and remove the resilient band, a soft fabric inner layer for contact with the individual, and an outer material having a second opening located at one or more of the end portions; wherein when the resilient band is inserted within the outer sleeve, the control portion extends through the second opening to provide the individual with access to the one or more control mechanisms.

According to yet another aspect of the present invention, there is provided an article for the ears of an individual comprising: a band that supports the article on the individual's ears; the band having two distal portions connected together by a central portion; at least one speaker for producing an audio output from an audio signal; and an outer sleeve comprising two end portions for covering an individual's ears and a connecting portion between the two end portions; the outer sleeve including a first opening; the first opening adapted to expose a control portion to provide the individual with access to one or more control mechanisms; the outer sleeve including insulating material at least in the location of the two end portions and facing the individual for insulating the individual's ears; the band and the at least one speaker being located inside the outer sleeve.

52827-1

According to a further aspect of the present invention, there is provided an article for the ears of an individual comprising: a band having two distal portions connected together by a central portion; at least one
5 speaker for producing an audio output from an audio signal; an outer sleeve comprising two end portions for covering an individual's ears and a connecting portion between the two end portions; the outer sleeve including insulating material at least in the location of the two end portions and facing
10 the individual for insulating the individual's ears; the band and the at least one speaker being located inside the outer sleeve, and at least one logo or advertising portion.

According to yet a further aspect of the present invention, there is provided a cover for a headphone of the
15 type having a band having a central curved portion and two distal portions placed over the individual's ears, the headphone having at least one speaker for reproducing an audio signal, the cover comprising: an outer sleeve dimensioned to contain the band and the at least one
20 speaker, the outer sleeve comprising two end portions corresponding to the distal portions of the band for covering the individual's ears and a connecting portion coupling together the two end portions of the outer sleeve, a first opening in the outer sleeve; and a second opening in
25 the outer sleeve; wherein the outer sleeve has a soft surface facing the individual's head for contact with the individual's skin; and wherein when the band is within the outer sleeve, the control portion extends through the second opening to provide the individual with access to the one or
30 more control mechanisms.

According to still a further aspect of the present invention, there is provided an article for the ears of an individual comprising: a band that supports the article on

52827-1

the individual's ears; the band having two distal portions connected together by a central portion; at least one speaker for producing an audio output from an audio signal; an electronic device connected to the at least one speaker for delivering a signal to the at least one speaker; the electronic device being located in the outer sleeve and the at least one speaker being connected to the electronic device; and an outer sleeve comprising two end portions for covering an individual's ears and a connecting portion between the two end portions; the outer sleeve including insulating material at least in the location of the two end portions and facing the individual for insulating the individual's ears; the band and the at least one speaker being located inside the outer sleeve.

According to another aspect of the present invention, there is provided an article for the ears of an individual comprising: a band that supports the article on the individual's ears; the band having two distal portions connected together by a central portion; at least one speaker for producing an audio output from an audio signal; and an outer sleeve comprising two end portions for covering an individual's ears and a connecting portion between the two end portions; the outer sleeve including a first opening for exposing an auxiliary jack for electronically connecting to the at least one speaker; the outer sleeve including insulating material at least in the location of the two end portions and facing the individual for insulating the individual's ears; the band and the at least one speaker being located inside the outer sleeve.

According to yet another aspect of the present invention, there is provided an article for the ears of an individual comprising: a band that supports the article on the individual's ears; the band having two distal portions

52827-1

connected together by a central portion; at least one
speaker for producing an audio output from an audio signal;
an outer sleeve comprising two end portions for covering an
individual's ears and a connecting portion between the two
5 end portions; the outer sleeve including insulating material
at least in the location of the two end portions and facing
the individual for insulating the individual's ears; the
band and the at least one speaker being located inside the
outer sleeve; and an antenna located inside the outer
10 sleeve.

Other features and advantages of the present
invention will be apparent from the accompanying drawings
and from the detailed description that follows.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates an overall three-dimensional perspective side view of an ear warming article, according to one embodiment of the present invention;

Figure 2 illustrates a planform view of the outside surface of an ear warming
5 article, according to one embodiment of the present invention;

Figure 3 illustrates a planform view of the inside surface of an ear warming article, according to one embodiment of the present invention;

Figure 4 illustrates a bottom plan view of an ear warming article, according to one embodiment of the present invention;

10 Figure 5 illustrates an exploded perspective view of an ear warming article, according to a preferred embodiment of the present invention; and

Figure 6 illustrates an enlarged right side view of a portion of an ear warming article, according to one embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

A warming article for a wearer's head comprising a C-shaped resilient band, an outer sleeve and (in some embodiments) a speaker or other electronic device is disclosed.

5 Although generally referred to as an ear warming article throughout the specification, it should be understood that the article can also, in some embodiments, provide protection and warmth to the wearer's neck as well. In the following description, for purposes of explanation, numerous specific details are set forth in order to provide an understanding of the present invention. It will be evident, however, to those of ordinary skill in the art
10 that the present invention may be practiced without the specific details. In other instances, well-known structures and devices are shown in block diagram form to facilitate explanation. The description of the preferred embodiments is not intended to limit the scope of the claims appended hereto.

An overall three-dimensional side view of an ear warming article, according to
15 one embodiment of the present invention, is illustrated in Figure 1. As shown in this embodiment, the visible portions of an assembled ear warming article 100 include a soft outer earmuff or "outer sleeve" 101 (made up of a soft outer portion 102, edge material 104 forming a border around the soft outer portion 102, and inner lining material 106 on surfaces that contact the wearer), at least one opening 110, and at least one control
20 portion 108 that protrudes/extends from the soft outer portion 102 through the opening 110 (such as the circular grommet hole depicted in Figure 1). As shown in the figure, a portion of an inner, resilient band 112 is seen visible through a viewing window 114, exposed only for the sake of illustration, that is located in the soft outer portion 102. The resilient band 112 is a generally C-shaped resilient member that takes the form of a band

in this embodiment, although it can assume any shape (e.g., cross-section) that achieves the desired effect of partially encircling the wearer's head.

As will be described in greater detail below in connection with Figure 6, the control portion 108 of the ear warming article can include display and functional features of electronic components contained within the ear warming article 100. The embodiment of Figure 1 illustrates several control mechanisms 116 as well as an exemplary display 118 (such as a LCD read-out, or other known screen). The aspects, features and functionality accomplished by these control mechanisms 116 and this display 118 can vary for a variety of desired articles, and thus are referred to here in only a broader sense.

Also, it is noted here that the one or more control portions 108, with which these elements (control mechanisms 116 and display 118) are associated, are attached to the resilient band 112, and together the resilient band and the at least one control portion 108 are sometimes referred to as the band/electronic device. That these two elements are sometimes referred to as being grouped together is done for convenience sake only, as the non-sleeve components of the invention can either include or not include an electronic device; indeed, certain embodiments further allow for interchangeable and/or removable electronic devices. In this regard, the fact that some embodiments of the present invention allow for such interchangeability/removability represents another significant feature of those embodiments of the present invention.

With respect to the materials that comprise the ear warming article, the composition of the outer sleeve 101 structure of the presently preferred embodiment is first described. As stated above, the outer sleeve 101 is comprised of a soft outer portion 102, edge material 104 and inner lining material 106, according to the embodiment illustrated in Figure 1. The soft outer portion 102 can consist of a weather resistant,

waterproof and/or breathable material such as, for example, a fabric like nylon or a breathable synthetic fabric like Goretex® (a trademark of W.L. Gore & Associates, Inc.).

The edge material 104 can consist of a soft, stretchable material such as Lycra® or a Lycra® blend (trademark of E.I. du Pont and Co.). Internal padding (not shown) that

5 better prevents rubbing or chafing between resilient band and the wearer and that provides a more comfortable article can also be included in the design; such padding can be comprised of any of the various, known open cell foam materials. Finally, the inner lining material 106 can consist of any number of suitable soft, flesh-accommodating fabric material, such as Polarfleece® (a trademark of ADS Corporation) or other soft
10 micro-fleece material.

The composition of the inner components (the resilient band and electronic device), according to one or more embodiments of the present invention, are now generally described. According to one preferred embodiment, the resilient band 112
itself is comprised of a band of resilient, lightweight metal, with the band possessing a
15 spring bias that urges the ear-contacting portions to a position that is slightly narrower than the size of the relevant head; in other words, different sized ear warming articles (such as small, medium and large) would have different neutral positions (the positions at which the spring forces attempt to bias the resilient bands), as well as different curvatures of the bands themselves. In the most preferred embodiment, the resilient metal material
20 is comprised of lightweight spring steel.

In an alternate embodiment, the ear warming article can include different-size inserts and/or inflatable portions that can be interchanged or inflated/deflated, respectively, to change the fit of the ear warming article in order to accommodate the specific size and shape of the wearer's head. These inserts/inflatable portions can be

located or associated with either the outer sleeve materials or the resilient band, or they can be entirely independent.

Next, the preferred embodiment comprising an internal AM/FM radio device with embedded AM antenna is described, although the other various embodiments of

5 electronic devices are set forth in more detail after the discussion of radio controls associated with Figure 6 below. In this preferred embodiment, the internal AM/FM radio device can be located on one or both of the control portions 108 attached to the resilient band 112. As described in more detail in connection with Figure 6, the controls 116 for the radio device can include volume, analog or digital tuning, user presets (such as
10 input/output or radio station presets), and an OFF/AM/FM three-position switch.

Additionally, the display 118 could be a digital station readout, and the power can be supplied by a battery (such as type AAA or AAAA) located in either or both control portions. An auxiliary input jack (for use with an MP3 player, CD player, etc.) can also be located on the ear warming article. Finally, the electronic device of such receiver- or
15 radio-including embodiments can include an embedded antenna that is streamlined within the ear warming article in such a way as to not interfere with the functional and branding features of the inventive article. In the preferred embodiment, the embedded antenna is an AM and/or FM antenna that does not extend beyond the ear warming article.

A planform view of the outside surface of an ear warming article, according to
20 one embodiment of the present invention, is illustrated in Figure 2. The ear warming article of Figure 2 is shown laid (or flattened) out, such that it discloses the ear warming article's appearance as if it were not in its customary arcuate or "C" shape. According to the embodiment of Figure 2, a laid out, outside view 200 of an ear warming article is shown. The laid out, outside view 200 is comprised of the soft outer portion 102

containing a main branding zone 206, the bead of edge material 104 surrounding the soft outer portion 102, and the at least one opening 110 that allows for the protrusion of either a branding portion 202 or a control portion 108 therethrough. The branding portion 202 further includes a branding location 204 that can take the form of a cap or piece of material, preferably hard plastic, that is interchangeably mounted onto or into the branding portion 202. For example, the branding location 204 might constitute a plastic cap having small extension tabs that extend and snap into the branding portion 202 to secure a branding or advertising piece onto the ear warming article. Similarly, the control portion 108 can include an advertising patch 208 in addition to the various controls 116 and/or displays 118 that are located thereon. This advertising patch 208 can be secured or connectable to the control portion 108 by any of the means that the branding location 204 is connected to the branding portion 202, such as Velcro® (a trademark of Velcro Industries B.V.) adhesive, other known physical securement mechanisms (the above-mentioned tabs, etc.), or it may be permanently attached.

In the embodiment of Figure 2, the main branding zone 206 is located on the outer surface of the soft outer portion 102. This main branding zone 206 can be permanently attached thereto, such that the branding may be changed by using different outer sleeves 101 fitted over the internal resilient band/electronic device structure, or the main branding zone 206 can be removably attached to the soft outer portion 102. In the latter case, the main branding zone 206 can then be removed for such purposes as washing the outer sleeve or when no branding is wanted, and it can then also be easily interchanged when different branding is desired, e.g. replacing a favorite football team logo with a favorite ice hockey team logo.

A planform view of the inside surface of an ear warming article, according to one embodiment of the present invention, is illustrated in Figure 3. The ear warming article of Figure 3 is shown laid (or flattened) out, such that it discloses the ear warming article's appearance as if it were not in its customary arcuate or "C" shape. According to the
5 embodiment of Figure 3, a laid out, inside view 300 of an ear warming article is shown. The laid out, inside view 300 is comprised of the bead of edge material 104, an inside surface 302, and two patches of the inner lining material 106. Stitching 304 is also shown in this figure to illustrate how the some of the exterior pieces of the ear warming article are attached together according to this embodiment. As seen in the embodiment of
10 Figure 3, the inner lining material 106 (preferably synthetic fleece or micro-fleece) is present in a shape that corresponds to the shape of the wearer's ears.

A bottom plan view of an ear warming article, according to one embodiment of the present invention, is illustrated in Figure 4. The bottom view 400 of an exemplary ear warming device is shown, illustrating an embodiment wherein a zippable closure 402,
15 which is used for inserting and removing the resilient band and/or electronic devices, is discretely located on a bottom side of the outer sleeve 101. It should be noted that the novelty of the disclosed embodiments of the ear warming article is not necessarily circumscribed by the precise type of closure set forth herein (indeed, some embodiments of the invention, such as those having a permanent outer sleeve, would require no
20 closure), although the novelty of some embodiments can be. Also illustrated in association with the outer sleeve 101 of Figure 4, are protruding portions 408 (such as control portions 108 or branding portions 202, as seen in Figure 2), a zipping closure element 404, and a fabric flap 406. In the presently preferred embodiment, the zipper (consisting of the zippable closure 402 and the zipping closure element 404) is located in

a slightly recessed fashion within the outer sleeve 101, and the fabric flap 406 is of complementary size so to fit over and hide the zipper. Furthermore, the fabric flap 406 is constructed of the same material as the fabric sleeve and is biased to remain over the zipper (although it can be pushed aside when the user wishes to access the zipper),
5 providing for hidden closure structure that does not affect the appearance of the ear warming article while it is worn.

Additional portions of the ear warming article are indicated in the embodiment of Figure 4 to assist full comprehension and description of the invention. First, end portions 410 are indicated to point out two regions of the outer sleeve 101 that contact the ears of
10 the wearer, receive the electronics located at the ends of the resilient band, and have other importance. Similarly, the two end portions 410 are connected by means of the connecting portion 412. Finally, two alternate locations for the auxiliary input jack 409 are illustrated in the embodiment of Figure 4.

An exploded, perspective view of a particular construction of an ear warming
15 article, according to a preferred embodiment of the present invention, is illustrated in Figure 5. The exploded view 500 illustrated in the embodiment of Figure 5 consists of a band/electronics portion 502 sandwiched between an exterior foam/fabric portion 504 and an interior foam/fabric portion 506 that together comprise an outer sleeve-like structure 102 that encompasses the band/electronics portion 502. In a preferred
20 embodiment, the exterior foam/fabric portion 504 and the interior foam/fabric portion 506 are of unitary construction (where the band/electronics portion 502 is inserted through the zippable closure 402 as shown in connection with Figure 4), although the outer sleeve can of course take the form of any multi-part/disassembleable construction.

Next, we turn to the novel construction of both this band/electronics portion 502 as well as the outer sleeve-like structure.

The band/electronics portion 502 forms a center, removable portion of this assembly, according to the illustrated embodiment. The preferred electronic devices 503 (e.g., radio, speaker, etc.) incorporated into the ear warming article are generally connected to the distal portions 505 of the central curved portion 507 of the resilient band 112. While these preferred devices have been set forth in more detail below, it is further noted here that all known, portable electronic devices can be incorporated into the ear warming article, provided as add-on or supplemental structure, or both. Similarly, the preferred composition of the resilient band 112 has been detailed above, although certain additional features of its curvature and resiliency are set forth below.

With respect to the exterior foam/fabric portion 504 of the preferred embodiment illustrated in Figure 5, it is comprised of an outer nylon layer 508, an open cell foam layer 510, and two 2-part snap grommets 512 (although only one grommet set is illustrated). As mentioned above, this exterior foam/fabric portion 504 can be integral with the interior foam/fabric portion 506 so as to form a unitary piece, or it may fit into (or otherwise snap or be removably secured to) the interior foam/fabric portion 506. The grommet structure defines the opening 110, as discussed in association with Figures 1, 2 and 6, through which either the control portion or the branding portions can protrude.

With respect to the interior foam/fabric portion 506 of the preferred embodiment illustrated in Figure 5, it is comprised of a foam base 512 covered in stretch fabric, an elastic headphone harness 514 (if necessary), and ear-engaging fabric 106 such as soft synthetic fleece or micro-fleece. The foam base 512 has a curved shape that matches and conforms to the head of the wearer, and is characterized by an outer foam skeleton and

optionally foam ribs to provide the basic shape, while possessing various channels and cavities to accept the resilient band 112 and any electronic device(s) that are included. Attached between opposed foam ribs are a pair of elastic headphone harnesses 514 to secure any associated headphone, earphone, wires or other, similar supplemental
 5 electronic device or its component. Finally, the ear-engaging fabric 106 may be any of the varieties of soft fabric addressed above in connection with Figure 2.

In a preferred embodiment, the ear warming article can include any type of receiver, such as AM, FM, AM/FM, XM, or a receiver associated with any sort of wire-
 using or wireless transmitting or broadcasting device, etc. As mentioned above, it is
 10 desired to locate the radio and its controls in such a way as to allow straightforward control while maintaining an article of simple and easy construction. Such advantageous location of radio control features and functionality is more fully developed in connection with Figure 6.

Figure 6 consists of an enlarged, right plan view of one ear covering portion of a
 15 preferred embodiment, illustrating the control portion of an AM/FM radio receiver that extends through one opening 110 of at least one end of the soft outer portion 102. As shown in the embodiment of Figure 6, the control portion 108 of the receiver extends through an opening 110, which is differentiated from the soft outer portion 102 by means of the grommet 512 or other border material. The control portion 108, then, includes a
 20 digital read-out 622 (i.e., the display 118), an OFF/AM/FM switch 624, a channel/station UP button 626, a channel/station DOWN button 628, a 'presets' button 630, a volume control 632, and a advertising patch 208.

As evident from the embodiment of Figure 6, the functionality of the controls located on the control portion 108 are straightforward, although all controls reasonably

related to audio or audiovisual devices are envisioned. In particular, these controls can be any of the controls associated with all known portable audio, video or audio/visual devices such as any of the existing Walkman® or other similar Sony® products, any of the controls used to control any other known devices possessing such potential audio-
5 output (e.g., TV production equipment, any recording equipment, surveillance equipment, etc.), any of the controls used to modify audio data such as may be found in graphic equalizer equipment (tuners, etc.), and/or other controls found on electronic devices that can be carried on or with a wearer. For purposes of illustrating one such exemplary device, the following details of one specific embodiment of the invention are
10 set forth: the digital read-out 622 functions to display such things as the currently selected radio station, the particular preset, the type of broadcast (AM or FM), the volume level and/or other relevant parameters (in another embodiment, the digital read-out 622 can be located underneath a branded lens); the OFF/AM/FM switch 624 turns the radio on, tuned to either frequency modulated (FM) or amplitude modulated (AM) receiving mode; the
15 channel station UP button 626 and DOWN button 628 are used to change the radio station and/or to effectuate related seek and scan functionality; the 'presets' button 630 is used to toggle the receiver through a variety of previously-established radio stations; and the volume control 632 provides either digital or analog control of speaker volume. However, it is noted again that a variety of other electronic devices are also contemplated
20 with the present invention.

In the foregoing, an ear warming article having an optional electronic device has been described. Although the present invention has been described with reference to specific exemplary embodiments, it will be evident that various modifications and changes may be made to these embodiments without departing from the broader spirit

and scope of the invention as set forth in the claims. Accordingly, the specification and drawings are to be regarded in an illustrative rather than a restrictive sense.

CLAIMS:

What is claimed is:

- 5 1. A warming device for the ears of an individual comprising:

a resilient band, the band having two distal portions placed over the individual's ears and
connected together by a central curved portion extending around the back of the
individual's head;

an electronic headset, the electronic headset comprising a speaker mounted on one of the
10 distal portions and facing the individual's head for reproducing an audio output from an
audio signal, and a control portion including one or more control mechanisms related to
the audio output; wherein the control portion is positioned on the at least one distal
portion of the resilient band or the other distal portion of the resilient band so as to face
away from the individual;

15 an outer sleeve dimensioned to contain the resilient band, the outer sleeve comprising two
end portions corresponding to the distal portions of the resilient band and a connecting
portion coupling together the two end portions of the outer sleeve, a first opening in the
outer sleeve through which the resilient band can be inserted and removed, a second
opening in the outer sleeve in the end portion to expose the control portion, the outer
20 sleeve having a soft surface facing the individual's head for contact with the individual's
skin; and

wherein when the resilient band is inserted within the outer sleeve, the control portion
extends through the second opening to provide the individual with access to the one or
more control mechanisms.
- 25 2. An ear warming device as recited in claim 1, wherein the outer sleeve includes at
least one fabric portion covering the speaker and between the speaker and the
individual's ear.

3. An ear warming device as recited in claim 1, wherein the outer sleeve has an imprintable surface for carrying a logo.
4. An ear warming device as recited in claim 1, wherein a separate speaker is mounted on each distal portion of the resilient band facing the individual's head for reproducing an audio output from the audio signal.
5. An ear warming device as recited as claimed in claim 1, wherein the electronic headset further includes an auxiliary input jack for receiving an audio signal from an external device.
6. An ear warming device as recited as claimed in claim 1, wherein the outer sleeve includes a zipper for closing the first opening through which the resilient band can be removed.
7. An ear warming device as recited as claimed in claim 6, wherein the zipper is hidden.
8. An ear warming device as recited as claimed in claim 1, wherein the resilient band is comprised of a resilient metal material tensioned to press the distal portions against the user's ears.
9. An ear warming device as recited as claimed in claim 8, wherein the resilient metal is spring steel.
10. An ear warming device as recited as claimed in claim 1, wherein the electronic headset further includes a receiver.
11. An ear warming device as recited as claimed in claim 10, wherein the receiver is at least one of an AM radio and an FM radio.
12. An ear warming device as recited as claimed in claim 1, wherein the outer sleeve includes a third opening in the end portion of the outer sleeve that encompasses the other distal portion of the resilient band, the third opening facing away from the individual's head, and a cover for the third opening, and wherein the cover includes an imprintable surface on which a logo can be imprinted.

13. An ear warming device as recited as claimed in claim 1, wherein the outer sleeve end portions cover the individual's ears when the ear warming device is worn by the individual.

14. An ear warming device as recited as claimed in claim 1, wherein the outer sleeve comprises an outer layer, a foam intermediate layer, and a fleece inner layer constituting the soft surface for contacting the individual's skin, and wherein the resilient band, when inserted in the outer sleeve, is interposed between the foam intermediate layer and the fleece inner layer.

15. An ear warming device as recited as claimed in claim 14, wherein the outer sleeve further includes at least a pair of strips of elastic material spanning the widthwise direction of the fleece inner layer for resiliently attaching the fleece inner layer to the resilient band.

16. An ear warming device as recited as claimed in claim 14, wherein the fleece inner layer is bordered by a fabric covered foam rib.

17. A cover for a headphone of the type having a resilient band having a central curved portion extending around the back of an individual's head and two distal portions placed over the individual's ears, at least one of the distal portions carrying a speaker for reproducing an audio signal and the other distal portion carrying a control portion including one or more outwardly facing control mechanisms related to the audio signal; wherein the cover comprises:

an outer sleeve dimensioned to contain the resilient band, the outer sleeve comprising two end portions corresponding to the distal portions of the resilient band for covering the individual's ears and a connecting portion coupling together the two end portions of the outer sleeve, a first opening in the outer sleeve through which the resilient band can be inserted and removed and a second opening in the end portion of the outer sleeve to expose the control portion;

wherein the outer sleeve has a soft surface facing the individual's head for contact with the individual's skin; and

wherein when the resilient band is inserted within the outer sleeve, the control portion extends through the second opening to provide the individual with access to the one or more control mechanisms.

18. A cover for a headphone as recited in claim 17, wherein the outer sleeve includes at
5 least one fabric portion covering the speaker and between the speaker and the individual's ear.
19. A cover for a headphone as recited in claim 17, wherein the outer sleeve has an imprintable surface for carrying a logo.
20. A cover for a headphone as recited as claimed in claim 17, wherein the fabric outer
10 sleeve includes a zipper for closing the first opening through which the resilient band can be removed.
21. A cover for a headphone as recited as claimed in claim 17, wherein the zipper is hidden.
22. A cover for a headphone as recited as claimed in claim 17, wherein the outer sleeve
15 includes a third opening in the end portion of the outer sleeve that encompasses the other distal portion of the resilient band, the third opening facing away from the individual's head, and a cover for the third opening, and wherein the cover includes an imprintable surface on which a logo can be imprinted.
23. A cover for a headphone as recited as claimed in claim 17, wherein the outer sleeve
20 end portions cover the individual's ears when the covered headphone is worn by the individual.
24. A cover for a headphone as recited as claimed in claim 17, wherein the outer sleeve comprises an outer layer, a foam intermediate layer, and a fleece inner layer constituting the soft surface for contacting the individual's skin, and wherein the
25 resilient band, when inserted in the outer sleeve, is interposed between the foam intermediate layer and the fleece inner layer.

25. A cover for a headphone as recited as claimed in claim 24, wherein the outer sleeve further includes at least a pair of strips of elastic material spanning the widthwise direction of the fleece inner layer for resiliently attaching the fleece inner layer to the resilient band.

5 26. A cover for a headphone as recited as claimed in claim 24, wherein the fleece inner layer is bordered by a fabric covered foam rib.

27. A warming article to be worn over the ears of an individual and extend around the back of the individual's head, comprising:

10

a resilient band, the band having a central curved portion and two distal portions;

an electronic headset device associated with at least one of the two distal portions, the electronic headset device comprising a speaker for playing an audio output from an audio
15 signal, a receiver, and a control portion including one or more control mechanisms related to the audio output or audio signal; wherein the control portion is positioned on the distal portion so as to face away from the individual;

an outer sleeve designed to contain the resilient band, the fabric outer sleeve comprising
20 two end portions corresponding to the distal portions of the resilient band, a first opening used to insert and remove the resilient band, a soft fabric inner layer for contact with the individual, and an outer material having a second opening located at one or more of the end portions;

25 wherein when the resilient band is inserted within the outer sleeve, the control portion extends through the second opening to provide the individual with access to the one or more control mechanisms.

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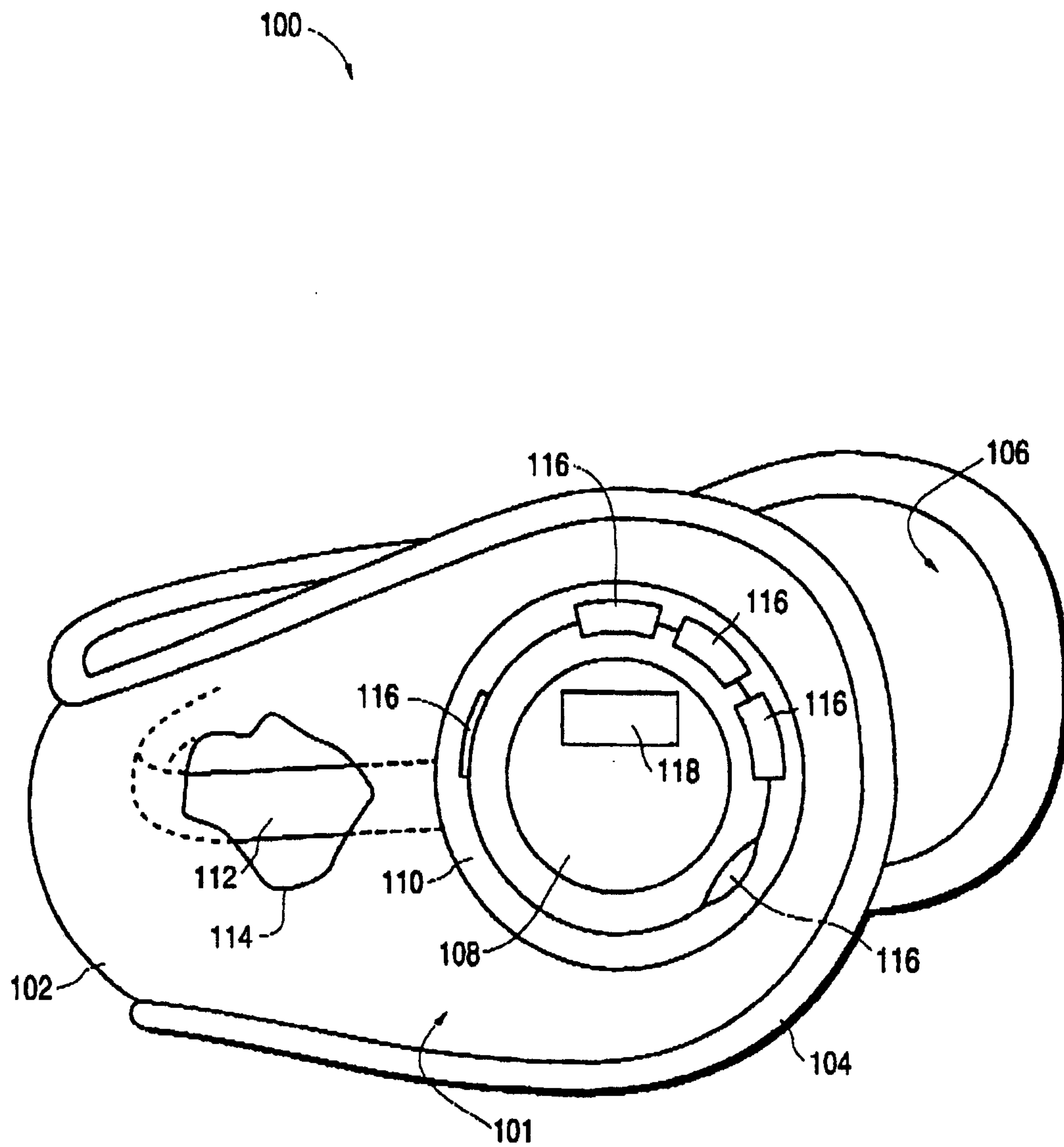
28. The ear warming article as claimed in claim 27, wherein the electronic headset device further includes an auxiliary input jack for the provision of data related to the audio output.

5 29. The ear warming article as claimed in claim 27, wherein the fabric outer sleeve includes a zipper through which the resilient band and electronic headset device can be removed.

30. The ear warming article as claimed in claim 27,
10 wherein the resilient band is comprised of a resilient metal material.

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**FIG. 1**

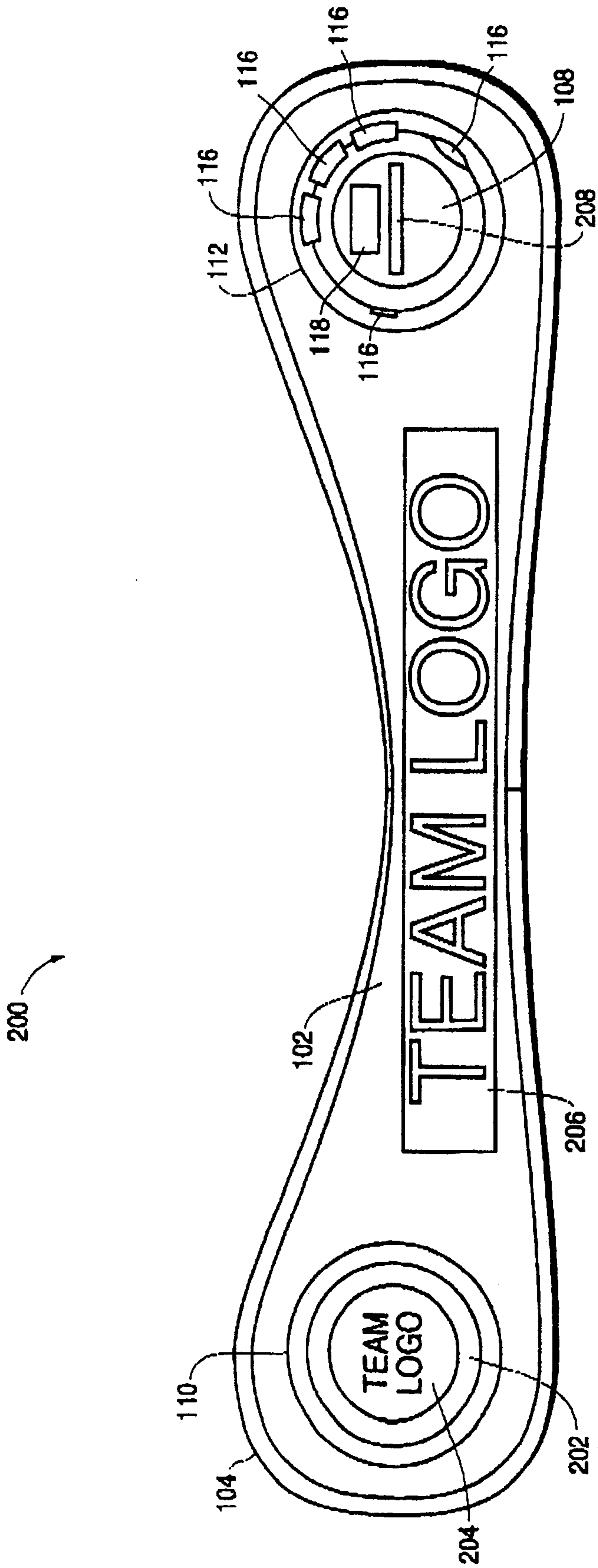


FIG. 2

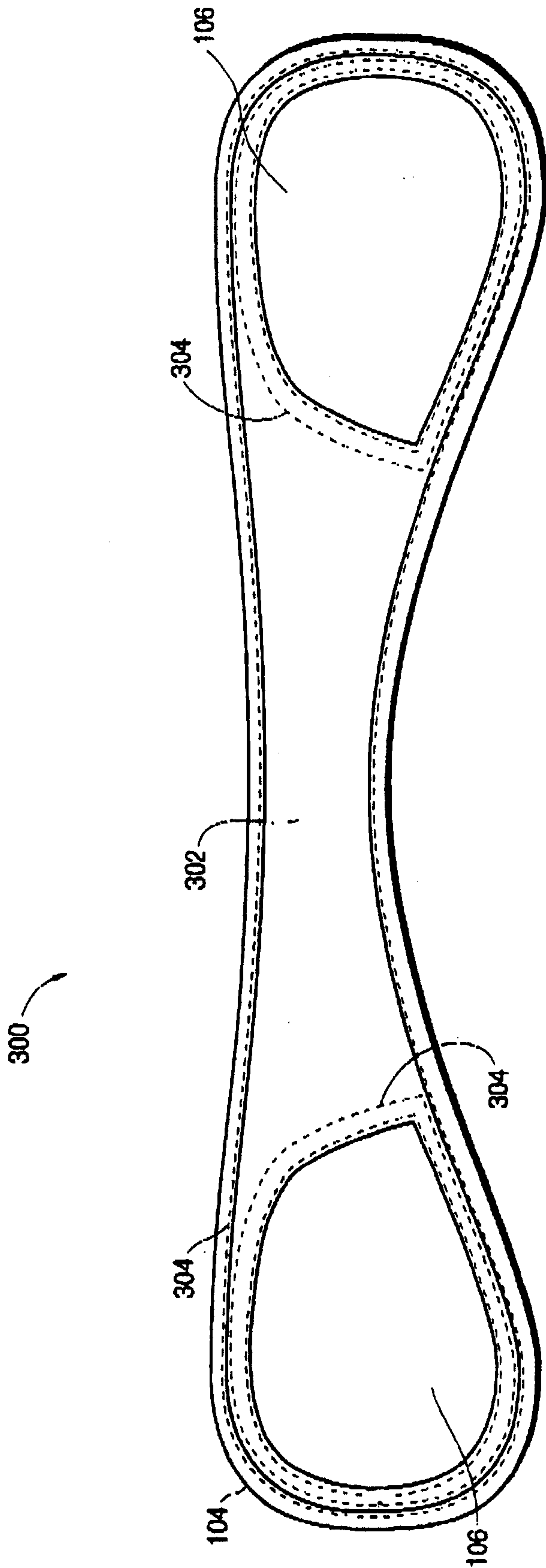


FIG. 3

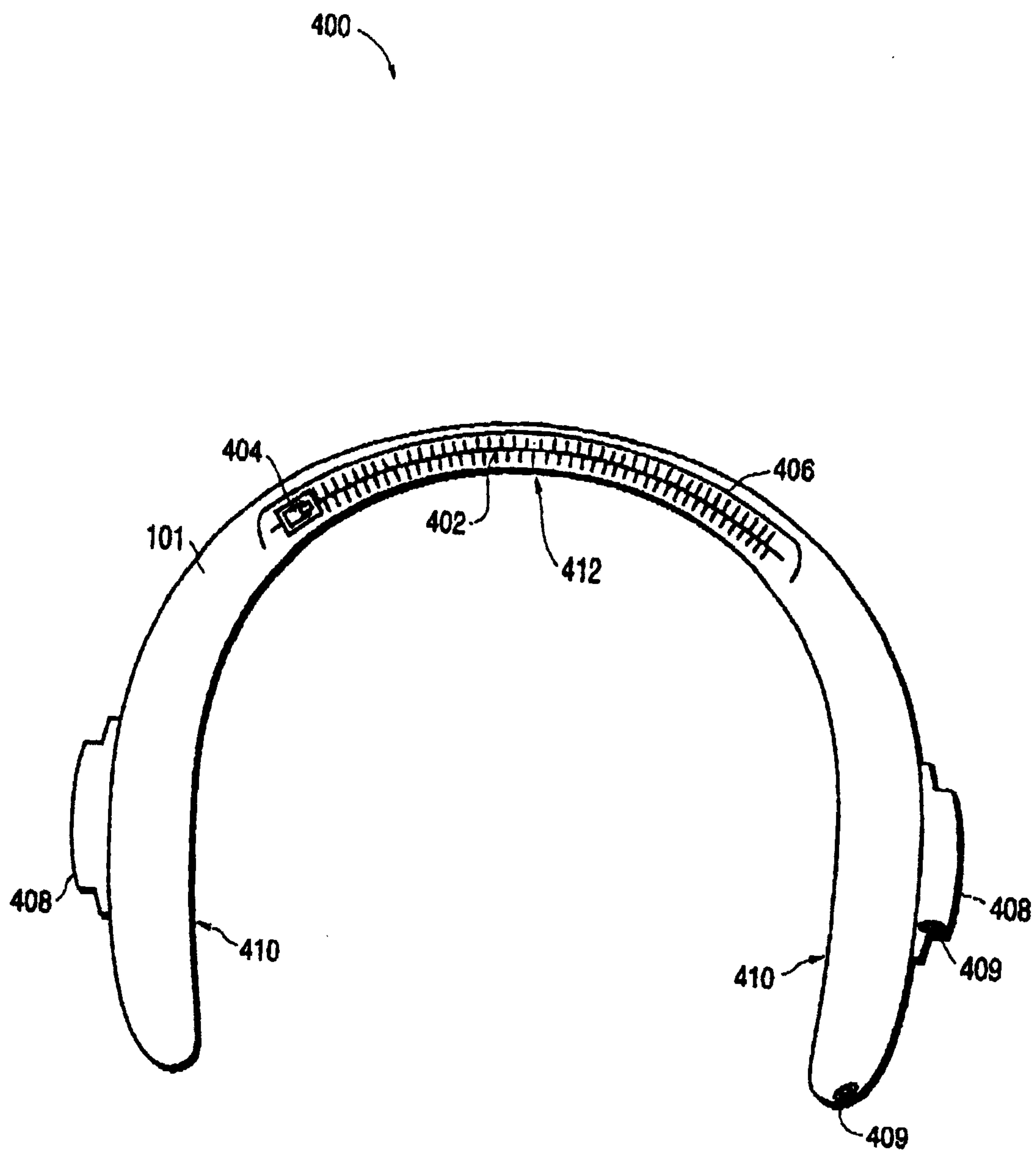
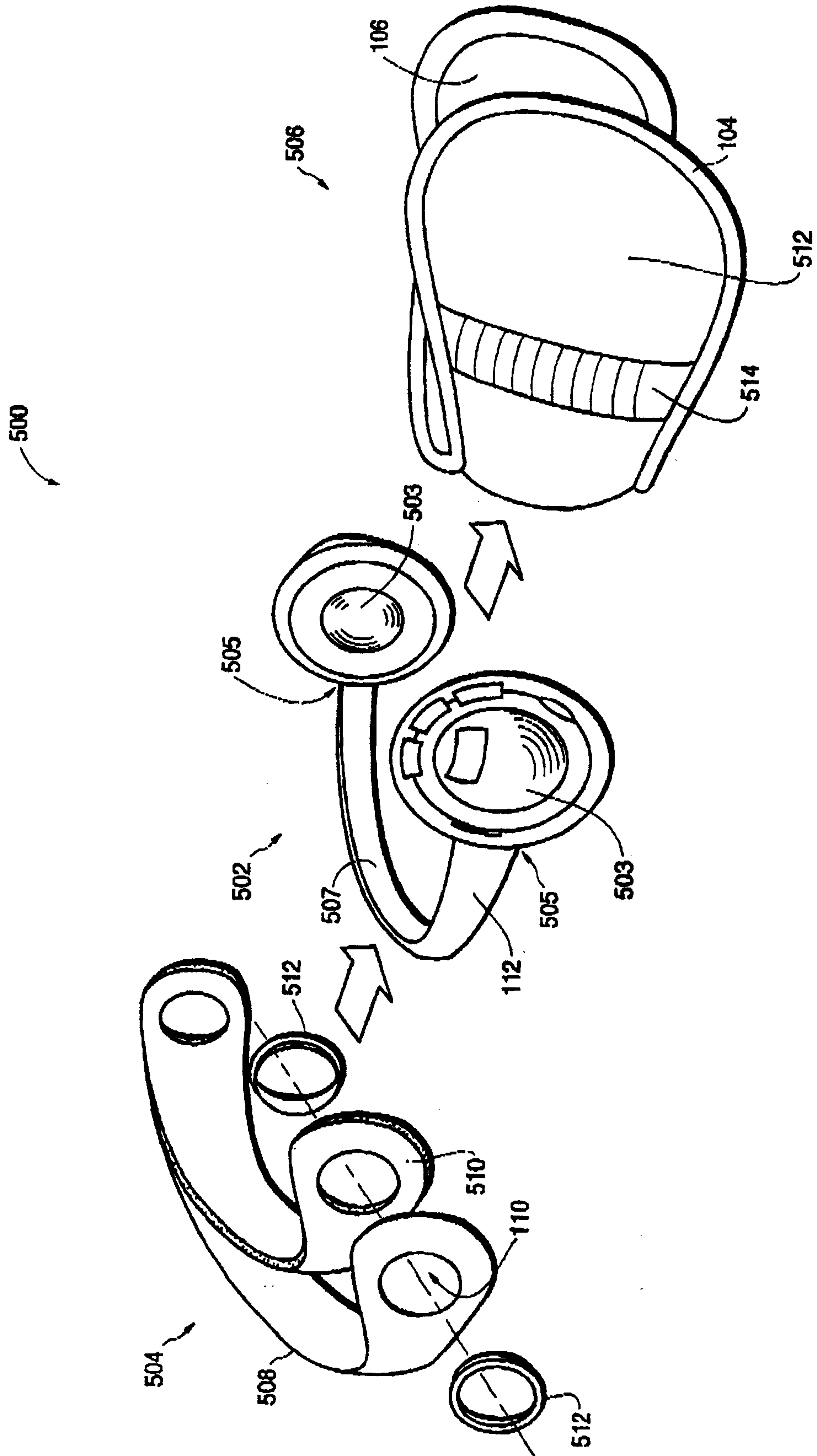
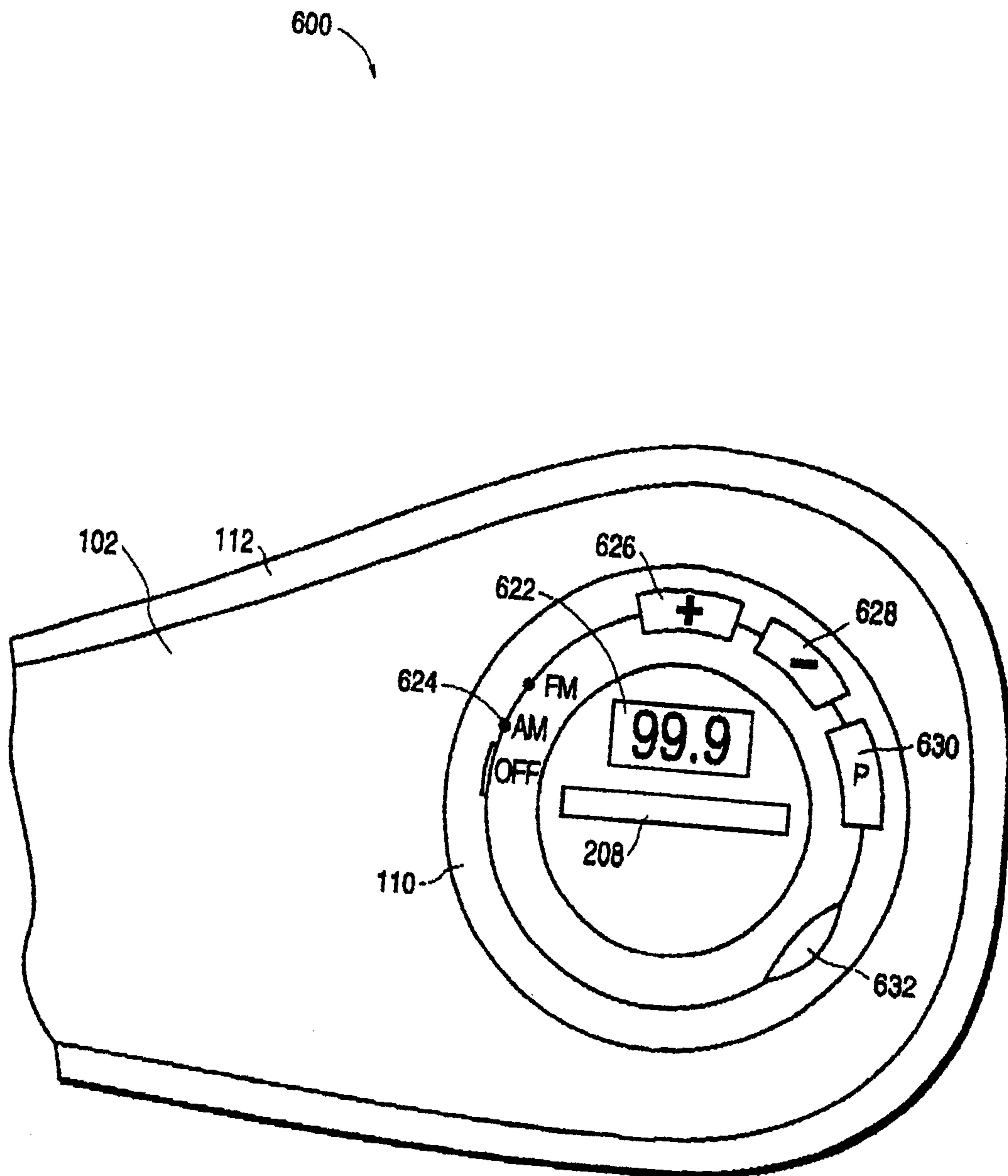


FIG. 4



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**FIG. 6**

